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An examination of well-being across theories of career development using Latent Profile Analysis

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AN EXAMINATION OF WELL-BEING ACROSS THEORIES OF CAREER

DEVELOPMENT USING LATENT PROFILE ANALYSIS

by

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ABSTRACT

Multiple theories have been designed to better understand how elements of working can affect personal well-being (Dawis, 2005; Duffy et al., 2016a; Duffy et al., 2018). The Theory of Work Adjustment (Dawis, 2005), a classic trait-and-factor theory, proposes that job satisfaction is the result of how well the needs and values of the worker fit within the needs and expectations of the workplace. The Psychology of Working Theory (Duffy et al., 2016a) posits that acquiring decent work (i.e., jobs that provide safety, access to healthcare, adequate compensation, hours for rest, and congruent values) will lead to well-being. Additionally, this theory acknowledges some of the limitations faced by marginalized groups when navigating the workplace and making a career choice. The Work as Calling Theory (Duffy et al., 2018) suggests that living a calling through work is directly related to increased job satisfaction. The purpose of the present research was to compare these theories' ability predict job satisfaction and life satisfaction across a diverse group of employed, American adults. Latent Profile Analysis (LPA) was used to identify heterogeneous profiles across the key variables of each theory. A 6-group model was supported. A regression analysis was conducted to examine the influence of group membership on well-being while accounting for demographic covariates (e.g., race, sexual orientation, income). This analysis revealed that group membership was a significant predictor of well-being across groups. Conversely, regression analyses revealed no significant effects from demographic information on the relationship between work variables and well-being.

ACKNOWLEDGMENTS

DEDICATION

To Philip and to my parents. I have appreciated your combined support more than I could express, but I'll try: thank you thank you thank you.

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LIST OF ABBREVIATIONS

AIC	Akaike's Information Criterion
BIC	Bayesian Information Criterion
CVQ	Calling and Vocation Questionnaire
CVQ-P	CVQ-Presence subscale
DWS	Decent Work Scale
ILO	International Labour Organization
LPA	Latent Profile Analysis
P-O fit	Person-Organization Fit
POFS	Person-Organization Fit Scale
PWT	The Psychology of Working Theory
SES	Socio-Economic Status
TWA	The Theory of Work Adjustment
VLMR	Lo-Mendell-Rubin Likelihood Ratio
WCT	The Work as Calling Theory

CHAPTER I – LITERATURE REVIEW

Since Parson's 1909 theory, vocational researchers and career counselors have been searching for methods to successfully pair employees with work environments that will maximize productivity for the workplace and satisfaction for the worker. In previous meta-analyses, job satisfaction has been consistently linked with overall life satisfaction (Judge & Watanabe, 1993; Rice et al., 1980). In fact, one meta-analysis examining the research between life satisfaction and job satisfaction found a significant positive relationship between the two for 90% of examples (Judge & Watanabe, 1993). In other words, when people are happy with their work, they are more likely to be happy with their lives. Thus, both work and life satisfaction are considered the main aspects of one's well-being. An individual's well-being can have dramatic impact on their quality of life. For example, individuals reporting poor well-being are more likely have more negative long-term and short-term health outcomes (Howell et al., 2007). This effect of well-being on health outcomes illustrates how important it is to maintain an adequate level of job/work satisfaction as a key aspect of overall well-being.

A plethora of theories and models on the antecedents of job satisfaction have been promoted throughout the past several decades to assist individuals with finding a pathway to being satisfied in their work. Early researchers, during the behaviorist era of psychology, identified the fit between worker and the environment as the key to being satisfied in one's job. Parsons (1909) is credited as one of the earliest theorists to offer this idea that the fit between a worker and his/her environment was the key to job satisfaction. Theories rooted in Parson's seminal ideas, are known as trait and factor theories, as these theories propose that individuals are able to make good career decisions

that lead to job satisfaction by identifying their individual values, skills, and interests and matching these with workplaces that cultivate and support these individual factors (Chartrand, 1991; Rounds & Tracey, 1990). The most prominent examples of a trait and factor theories used today are Holland's Theory of Career choice (RIASEC; Holland, 1997) and the Theory of Work Adjustment (Dawis, 2005).

Trait and factor theories of career choice continue to be used today in both clinical and research settings; however, they are not without criticism. Many vocational researchers have voiced concerns regarding assumptions of trait and factor theories. Specifically, the success of trait and factor models hinges on the idea that assessment and guidance from vocational counselors will yield accurate information about an individual's skills, values, and interests. Further, even if the information gathered was accurate, it is not certain that a rational decision would be made by the jobseeker due to societal barriers to accessing specific occupations or a search for meaning in their work. For example, a trait and factor approach may indicate that an individual would perform well as a researcher; however, if the jobseeker faces financial barriers to obtaining this goal (e.g., funding a college or graduate education), they may choose an option outside of what is indicated by the trait and factor theory.

Given the limitations of trait-and-factor theories of career development, there has been a rise in modern theories of career choice that account for these inequities. Current employees have different needs within the workplace based on their individual identities, values, and opportunities. Because of this, modern theorists have worked toward identifying methods of maximizing job satisfaction and well-being for individuals from many different social, economic, and cultural backgrounds and identities. Examining the

interplay between these models of career choice is necessary to understanding the multi-faceted needs of today's workers and discovering more efficient ways to increase overall well-being. For example, some individuals may find one theory more useful in guiding their career choice than another based on their individual needs. Therefore, the aim of the current research is to explore the utility of each theory for an individual while acknowledging economic constraints related to job choice. To meet this goal, key variables, such as person-organization fit, decent work, and calling, from three theories of career development (e.g., Theory of Work Adjustment, Psychology of Working Theory, and Work as Calling Theory) will be examined from a person-centered approach to determine if individuals' concurrent standing on these variables constitute heterogeneous profiles, with the expectation that some profiles yield greater job and life satisfaction. Further, data will be gathered from a diverse population to determine if differences in well-being emerge based on socio-economic status and membership within marginalized groups (e.g., racial, ethnic, or sexual minorities).

The Theory of Work Adjustment

As previously mentioned, an example of a trait and factor theory that has been widely studied by vocational researchers to predict job satisfaction is the Theory of Work Adjustment (TWA; Dawis, 2005). The TWA focuses on the ways in which an individual 'fits' within their specific workplace and explains that high fit predicts high job satisfaction and longer employee tenure. For example, an employee who works well with colleagues and is able to perform the tasks required by the job would be considered to have 'good fit' within that position. When an individual fits well with a particular occupation or job, TWA assumes it is less likely that they will be terminated from the

position and more likely that they will be satisfied and choose to remain in the position (Dawis, 2005). However, there are multiple ways to assess the fit of an individual worker.

Workplace fit. Within the original TWA model, person-organization fit (P-O fit) and person-job fit (P-J fit) are important aspects in predicting job satisfaction and tenure (Dawis, 2005). According to TWA, P-O fit is determined by the similarities in work values between the employee and their employing organization. Some examples of work values include achievement (e.g., utilizing personal skills), autonomy (e.g., having freedom within the work environment), and comfort (e.g., compensation, leisure time, steady employment, and safe conditions; Gay, 1971). When the organization provides reinforcement of the work values of the individual employee, the employee feels greater job satisfaction making them less likely to quit (Dawis, 2005; Kristoff-Brown et al., 2005).

According to TWA, person-job fit is determined by the needs of the organization and the employee's ability to meet those needs by performing work tasks efficiently (Dawis, 2005). The comparison of the abilities of the worker to the requirements of the organization determines the satisfactoriness of the worker from an employer's perspective. In other words, satisfactoriness is an employee's job performance based on the fit between the individual's abilities and the requirements of the job. When P-J fit is high, TWA assumes the employer is satisfied and likely to retain that worker. Thus, P-J fit is related to tenure and job satisfaction (Dawis, 2005; Kristoff-Brown et al., 2005).

Because personal values vary widely between individuals based on personal context and experiences, it follows that perceptions of one's P-O fit varies widely based on these same differences (Dawis, 2005; Resick et al., 2007). For example, personality

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differences have a significant effect on how individuals select career paths and work environments in an effort to increase their perception of P-O fit (Judge & Kristoff-Brown, 2004). Given that individual differences affect P-O fit, this type of fit has often been used to evaluate workplace experiences for minority individuals from diverse racial (Lovelace & Rosen, 1996; Lyons & O'Brien, 2006), socio-economic (Lyons et al., 2014), sexual (Allan et al., 2014; Martinez et al., 2017; Sears & Mallory, 2011; Velez & Moradi, 2012), and religious (Schultz et al., 2022) backgrounds. Generally, results of these studies have revealed a significant positive predictive relationship between workplaces who are supportive of minority workers and the job satisfaction of those workers (Lyons et al., 2014; Martinez et al., 2017; Velez & Moraldi, 2012). A study examining the experiences of racial minorities indicated that perceptions of racial climate within the workplace was related to perceptions of P-O fit (Lyons et al., 2014) and that perceptions of P-O fit were significantly different for individuals from different racial groups within the same workplace (Lovelace & Rosen, 1996). Additionally, studies with lesbian, gay, bisexual or transgender (LGBT) individuals and religious minorities have found similar patterns of relationships between supportive work environments, fit, and job satisfaction (Martinez et al., 2017; Velez & Moradi, 2012).

Despite TWA often being used in research with minority groups, it assumes a certain level of agency for the workers to make choices irrespective of economic and cultural contexts. Having the privilege to choose a career that aligns with one's individual values is not attainable for many workers across the globe (International Labour Organization, 1999). In fact, choosing and maintaining a career that is congruent with values may not be beneficial at all if survival needs (e.g., decent pay and safety) are not

being met by the environment. To reconcile these gaps in the TWA, other career theories have since been proposed to identify pathways to job satisfaction for individuals who may not have the agency to choose their ideal career.

<div align="center">The Psychology of Working Theory</div>

The Psychology of Working Theory (PWT) proposes a model that explicitly acknowledges the limitations that some individuals face when selecting a career (Duffy et al., 2016a). Addressing these barriers is a significant departure from trait and factor theories which assume that each individual has the potential to find work that is fully aligned with their values or interests. Utilizing constructs such as decent work and work volition, the PWT acknowledges the career opportunities of marginalized groups and those with limited choices based on academic, economic, and social constraints. Specifically, the theory suggests that decent work may be predicted by work volition and career adaptability and that decent work predicts the fulfillment of survival, social connection, and self-determination needs.

Decent Work. In 1999, the International Labour Organization (ILO) proposed the concept of decent work as a goal that workers of all racial, ethnic, socioeconomic, geographic, and gender backgrounds can hope to achieve. Since this proposal, decent work has further evolved to reflect the needs of current workers across the globe and has been studied closely by vocational psychologists (Duffy et al., 2017; Kim et al., 2021). Current conceptualizations of decent work include five major factors: (1) physically and interpersonally safe working conditions, (2) access to healthcare, (3) adequate compensation, (4) hours that allow free time and rest, and (5) organizational values that complement family and social values (Duffy et al., 2016; Duffy et al., 2017). Research

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related to decent work and the measurement of this construct has proliferated in multiple countries across the globe in the past few years. The five-factor model of decent work has remained largely reliable and valid when translated for international samples and continues to be used in current research (Dodd et al., 2019; Masdonati et al., 2019; Ribeiro et al., 2019; Wang et al., 2019).

Decent work is an important factor in meeting personal and professional needs for individuals. Specifically, the facets of decent work are linked to survival (e.g., physically safe working conditions, access to healthcare, and adequate compensation), social connection (e.g., interpersonally safe working conditions and hours that allow free time and rest) and self-determination needs (e.g., adequate compensation, hours that allow free time and rest, organizational values that complement family and social values). Research in decent work has demonstrated that an individual's ability to meet these needs despite constraints is directly related to well-being and work fulfillment (Duffy et al., 2016a). The PWT suggests that securing decent work may contribute to employees' happiness while at work and in life.

Work Volition. In the PWT, the ability of one to secure decent work is based on one's work volition and career adaptability. Work volition is an individual's perception that they are able to choose their career freely despite relevant economic or social constraints (Duffy et al., 2012). Career adaptability, introduced by Savickas (1997), is an individual's ability to remain flexible in the workplace when change is introduced (e.g., environment, staff, role, tasks, etc.). Both variables are related to several positive career outcomes including increased fulfillment and self-efficacy in the workplace and these

characteristics are more likely to lead to careers that align well with the facets of decent work (Duffy et al., 2016a).

Research has demonstrated that work volition and career adaptability are predicted by economic constraints and marginalization such that individuals experiencing marginalization or economic constraints may have lowered career adaptability and work volition and thus a lower likelihood of securing decent work (Barto et al., 2015; Duffy et al., 2016). Specifically, within samples of women and racial and sexual minorities, decent work was only attainable for individuals facing economic constraints when work volition and/or career adaptability was high (Allan et al., 2019; England et al., 2020; Kozan et al., 2019). Thus, despite the positive outcomes of decent work, work volition and career adaptability are important components for diverse individuals facing economic constraints to achieve decent work.

The Work as Calling Theory

The Work as Calling Theory (WCT), proposed by Duffy et al. (2018), is another recent theory that predicts positive work outcomes, such as job satisfaction and job performance, which have been linked to life satisfaction and tenure (Judge & Watanabe, 1993). Similar to PWT and TWA, this theory identifies multiple variables that are essential to reach positive work outcomes. The concept of calling is at the core of the WCT.

Calling. Across the literature, calling has been conceptualized in many different ways; however, Duffy et al. (2018) describe calling as "an approach to work that reflects seeking a sense of overall purpose and meaning and is used to help others or contribute to the common good, motivated by an external or internal summons" (p. 426). This

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definition acknowledges each of the three aspects of calling; external/transcendent summons, meaning/purpose, and prosocial motivation (Dik & Duffy 2009; Duffy & Dik 2013; Dik et al., 2012). External summons refers to an individuals' perception that a force outside themselves is compelling them to pursue a specific career. This may refer to a specific deity or a less specific, more secular idea of destiny or purpose. The meaning/purpose aspect of calling refers to an individual's perception that their chosen career aligns with their purpose in life and allows them to draw meaning from their work in addition to other aspects of their lives. Prosocial motivation refers to an individual's perception that they have a responsibility to help others and they satisfy this with their work.

Work meaning, an aspect of calling, is of particular importance due to its prevalence across the literature (Allan et al., 2014; Duffy et al., 2018; Duffy et al., 2015; Steger et al., 2012). Work meaning captures the relevance of work to an individual's life meaning (Duffy et al., 2018). Work meaning focuses on the meaning/purpose component of calling, thus it has been identified as a significant predictor of living a calling within the WCT model (Duffy et al., 2018). Studies examining work meaning have indicated that individuals derive much of their meaning at work from helping others (Allan et al., 2014; Steger et al., 2012).

In addition to these facets of calling, calling can also be examined in reference to its attainment. Specifically, those who perceive a calling and those who are living their calling (Dik & Duffy 2009; Duffy & Dik 2013; Duffy et al., 2017; Dik et al., 2012). Those who perceive a calling are not currently working within the field that they feel 'called' to; however, they are able to experience the pull in that direction and voice

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having identified a calling. Those who are living their calling are currently working in the field to which they feel 'called.' Within the framework of the WCT, perceiving a calling predicts living a calling (i.e., you must perceive a calling in order to live-out that calling in the workplace). The WCT suggests that living a calling is predictive of multiple positive and negative outcomes. Positive outcomes include job satisfaction and job performance, while negative outcomes include workaholism, burnout, and exploitation (Duffy et al., 2018). Finally, in the WCT model, calling is significantly related to work meaning over time.

The WCT also integrates key variables included in the TWA and the PWT. For example, the WCT posits that access to career opportunities predict both work meaning and living a calling – similar to work volition acknowledged within the PWT. Additionally, the WCT model predicts that work meaning is predicted by person-environment fit, a construct included within the TWA framework (Duffy et al., 2018). In sum, the WCT proposes that fit, work meaning, and access to opportunity are significant predictors of living a calling. Living a calling can lead to both positive and negative outcomes in the workplace. With approximately 50% of working adults in the U.S. reporting that they have a calling (Duffy et al., 2015), it is important to explore the potential for calling to predict job satisfaction to better understand the implications of calling on individuals' well-being. Additionally, the overlap between this model and the TWA and PWT models warrants additional exploration to determine which specific variables might be most relevant to individuals' well-being in the workplace, particularly for marginalized workers.

The Current Study

The aim of the present study was to gain a better understanding of individual

employees' job satisfaction given their standing on key constructs introduced by TWA,

PWT and WCT. The TWA argues that multiple types of fit (e.g., P-J of abilities and P-O

fit of work values) and resulting congruence between the environment and worker are

responsible for job satisfaction (Dawis, 2005). The PWT promotes the attainment of

decent work through work volition and career adaptability as the most important

predictor of fulfilling personal needs which lead to work fulfillment and well-being

(Duffy et al., 2016a). Finally, the WCT proposes that work meaning, as the most

important component of living a calling, is the most significant predictor of job

satisfaction and job performance. The constructs used in these theories attempt to address

and explain multiple potential avenues that lead to increased job satisfaction which is

highly predictive of overall life satisfaction.

Despite the similar outcomes of these theories (e.g., job satisfaction and work

fulfillment) and their application to marginalized groups, there has been little research

comparing fit, decent work, and calling within the same sample. When creating the

Decent Work measure, Duffy et al. (2017) measured and correlated the three variables

within the same sample revealing significant relationship between decent work and work

meaning ($r = .48$), decent work and fit ($r = .68$), and between fit and work meaning ($r =$

.72) suggested moderate relationships between these variables. While each of these

variables have been examined with variable-centered approaches (i.e., examining these

relations between variables at the sample or population-level), the reality is that

individuals' experiences of P- O fit, decent work, and calling happen concurrently. In

order to gain a better understanding of how these theories are applicable to an individual's experience, a person-centered approach may be most appropriate. Specifically, these approaches offer more clarity as to how individual differences affect group membership (Howard & Hoffman, 2018), rather than variable-centered approaches which focus on existence of relationships between variables. Further, this approach offers a more nuanced account of the interaction between an individual's experience with fit, decent work, and calling while simultaneously acknowledging individual differences established across previous theories (e.g., SES, race, and sexual orientation).

Determining Profiles. One specific type of person-centered approach used to identify heterogeneous groups of individuals across given variables is Latent Profile Analysis (LPA; Oberski, 2016). Similar to cluster analyses, LPA can be used to explore or confirm potential subgroups of individuals based on given continuous variables; however, unlike cluster analyses, this approach examines latent relationships within the variables. Used as an exploratory approach, LPA uses measures of model fit to determine the number of heterogenous groups that best fit the data. Alternatively, used as a confirmatory approach, the number and nature of groups can be specified a priori and model fit indices can be used to confirm hypotheses. Another advantage to using an LPA is the availability of fit indices to ensure accurate results. Because there is little research describing the overlap between these three key variables across career development theories, an exploratory approach was most appropriate for this study. Thus, the goal of the current study was to use LPA to examine the relations between fit, decent work, and calling to identify heterogeneous groups based on individuals' standing on each variable.

Looking to prior findings on the relations between fit, decent work, and calling using variable-centered approaches, it was expected that a number of different profiles will emerge. While there is not enough prior literature in this area to predict the number of different profiles that may be identified, previous literature has suggested that fit, decent work, and calling are moderately correlated. However, a slightly stronger relationship has been demonstrated between decent work and fit as compared to other relationships between decent work and meaning (Duffy et al., 2017; Di Fabio & Kenny, 2019).

Hypothesis 1. A number of unique profiles will emerge based on individuals' standing on P-O fit, decent work, and calling.

Well-being. Each theory proposes that these variables (e.g., fit, decent work, calling) predict desirable outcomes within the workplace including increased job satisfaction, increased life satisfaction, and decreased intent to quit. These outcomes have been linked to increased overall well-being (Judge & Watanabe, 1993). One meta-analyses conducted by Kristoff-Brown et al. (2005) examined the relationship between different types of fit and job satisfaction finding a strong correlation between P-O fit and job satisfaction ($r = .50$). Additionally, this meta-analysis revealed that P-O fit was strongly correlated in the negative direction to intent to quit ($r = -.47$). Previous examinations into the relationship between decent work and job satisfaction has also revealed a significant relationship. One large sample of employed United States Citizens revealed a strong correlation between decent work and job satisfaction ($r = .51$) and life satisfaction ($r = .48$; Kim et al., 2021). Additionally, within a sample of Australian workers, decent work was moderately correlated with job satisfaction ($r = .39$; McIlveen

et al., 2020). Finally, research examining calling has demonstrated a similar relationship to job satisfaction ($r = .52$; Duffy et al., 2012). Due to the convergence between these findings, it was predicted that profile membership will predict life and job satisfaction significantly.

Hypothesis 2: Profile membership will positively predict a significant amount of variance in both life and job satisfaction.

Experiences of Marginalized Identities. Understanding how individuals with different backgrounds achieve job satisfaction is imperative to providing adequate vocational counseling to clients who each have unique preferences, needs, and goals, particularly for marginalized individuals and was the impetus to the development of the PWT and WCT. Research on each of these theories has been applied to the experiences of marginalized individuals within the workplace. Research within the framework of TWA has revealed that minority groups are more likely to experience unsupportive or hostile workplaces due to their identities (e.g., race and sexual orientation), negatively impacting perceptions of P-O fit resulting in lower job satisfaction (Lyons, et al., 2014; Velez & Moradi, 2012). PWT was constructed to address the career needs of marginalized groups who have less freedom to choose a career based on values or interests. In fact, marginalization and economic constraints (e.g., SES) are empirically supported predictors of work volition and career adaptability which are predicted by the model to be related to decent work (Duffy et al., 2016a). Research examining the utility of calling within marginalized groups' experiences in the workplace is limited (e.g., Schultz et al., 2022). However, the model acknowledges the impact of access to

opportunity, something that is directly impacted by marginalization status, as a predictor of calling.

These theories have been applied to these three marginalized groups—racial minorities, sexual minorities, and lower income individuals. Specific to racial minorities, previous research in the context of decent work has demonstrated that these individuals are most likely to experience marginalization and economic constraints, both being barriers to securing decent work (Duffy et al., 2016a). Within TWA research, ethnic and racial minorities' perception of fit is significantly lower than non-minority groups (Lovelace & Rosen, 1996). For racial minorities that do report higher P-O fit, a positive racial climate in the workplace is the largest contributing factor to perceptions of higher P-O fit (Lyons et al., 2014). The experiences of racial and ethnic minorities related to calling is limited within the literature.

Relevant to the experiences of sexual minorities, previous research with sexual minorities in the workplace in the context of decent work has revealed similar patterns to those revealed in racial minority populations with a few notable differences. Specifically, for LGBT individuals, economic constraints were significant predictors of increased work volition (Allan et al., 2019). Across TWA research, patterns, similar to those for racial minorities, between fit and job satisfaction have been revealed (e.g., when LGBT values are not reflected in the workplace, perceptions of P-O fit suffer; Velez & Moradi, 2012).

Finally, data on individuals experiencing economic disadvantages has revealed lower levels of workplace fit (Waterfield et al., 2019), decent work (ILO, 2014; Kim et al., 2021), and calling (Duffy et al., 2017). Specifically, one study found that

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economically disadvantaged individuals working at a university reported feeling isolated and alienated from their co-workers who had not experienced the same economic upbringing (Waterfield et al., 2019). Further, research on calling has revealed that income moderates the relationship between perceiving a calling and living a calling (Duffy et al., 2017).

Although the relationship between each of these theories and certain marginalized groups has been demonstrated in the literature separately, it is still unclear how all three of these theories converge and apply to marginalized individuals (e.g., racial/ethnic minorities, LGBT individuals, lower income). Additionally, it is unclear how different demographic factors, such as ethnicity or social class, may be over-represented in some profiles. Due the similarities between these theories and their individual relationships with job satisfaction or work fulfillment it is likely that individuals with marginalized identities (e.g., ethnic/racial minorities, sexual minorities, lower income) will disproportionately fall within profiles reporting lower P-O fit, decent work, and calling. More specifically, it is likely that those from lower income groups and racial and sexual minorities will report lower levels of fit, decent work, and calling than individuals from majority groups.

Hypothesis 3: Individuals with more marginalized identities (e.g., racial, ethnic, and sexual minorities, and low income) will be over-represented in groups with lower P-O fit, decent work, and calling.

CHAPTER II – METHODS

Participants

Following the data cleaning process described below, a total of 325 participants

provided valid responses to the study recruited through Amazon's Mechanical Turk

(MTurk). Their ages ranged from 20 to 72 years ($M = 35.47$, $SD = 9.51$) and a majority

identifying as male (62.2%). Most respondents identified as White/Caucasian (84%)

followed by Black/African American (6.5%), Multicultural (4.0%), Asian (2.5%),

Hispanic/Latinx (1.2%), Native American (0.9%), Alaskan Native (0.6%), and Native

Hawaiian (0.3%). The sample largely consisted of individuals identifying as

Straight/Heterosexual (71.1%) but also contained a large percentage of individuals

identifying as bisexual (27.1%) and other sexual orientations including Gay/Lesbian

(1.5%) and Asexual (0.3%). Most participants indicated the presence of one to two

physical or mental health barriers (40.9%) and the rest of the participants either denied

the presence of health barriers (32.6%) or endorsed three or more items related to health

barriers (26.5%). Participant responses related to income varied with a majority of

reported incomes falling between $50,000 and $74,999 or between $75,000 and $99,999

(31.1% and 31.4%, respectively). The next largest group fell between $25,000 and

$49,000 (24.3%). Nearly 4% of participants reported a gross household income below

$25,000 and 9.5% of participants reported earning greater than $100,000. Finally,

religious orientation was also assessed to reveal a majority of participants identified as

Christian (76.6%) followed by Atheists and Agnostics (8% and 5.5%, respectively).

Participants who identified as Jewish comprised 2.8% of the sample along with those

who identified as 'spiritual but not religious" who also made-up 2.8% of the sample. Self-

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identified Buddhists and those who preferred not to disclose had similar numbers (1.5%

and 1.2%, respectively). The smallest groups in the sample were those who identified

with Islam or Hinduism; each of those identities accounted for less than 1% of the

population (0.6% and 0.9% respectively). Accounting for all demographics per

participant, approximately 83% of the sample identified with at least one marginalized

identity and 54% identified with at least two identities.

<div align="center">Measures</div>

Demographics. Participants were given a brief demographic measure where they

were asked to provide personal, occupational, and educational information. Specifically,

this information included, age, race and ethnicity, gender identity, sexual orientation,

religious identity, disability status, marital status, employment status, tenure at their

current place of employment, annual gross income, household income, occupational

category, and educational status (Appendix A). Of note, socioeconomic status was

measured by household income as a categorical variable for each participant. Only data

on race, sexual orientation, and income were used in hypothesis testing. The remaining

demographic variables were used for participant eligibility and to further describe the

sample.

The Decent Work Scale. The Decent Work Scale (DWS; Duffy et al., 2017) was

created to accurately assess respondents' perceptions of how well their current job

matches the five components of decent work. These components include safe working

conditions (e.g., "I feel physically safe interacting with people at work"), access to

healthcare (e.g., "I have a good healthcare plan at work"), adequate compensation (e.g.,

"I am rewarded adequately for my work"), free time and rest (e.g., "I have free time

during the week"), and complementary values (e.g., "The values of my organization match my family values"). Participants were asked to rate their agreement with 15 statements on a 7-point Likert scale (1 = *strongly disagree, 7 = strongly agree*). Internal consistency for each subscale ranged from α = .79 to α = .97 in the initial measurement construction study (Duffy et al., 2017) and it has been used in another study that used similar statistical methods with decent work (Kim et al., 2021) as well as other studies (Allan et al., 2019; Duffy et al., 2019; Masdonati et al., 2019). Similar internal consistency results were revealed in the current study (α = .87).

P-O fit. P-O fit was measured using Cable and DeRue's (2002) perceived fit measure. This measure examines fit across three categories including person-organization fit (α = .91; P-O fit), needs-abilities fit (α = .89; N-A fit), and demands-abilities fit (α = .89; D-A fit; Cable & DeRue, 2002). However, only items that are designed to measure P-O fit were used in the current study. Example items include "My abilities and training are a good fit with the requirements of my job" and "My personal values match my organization's values and culture." This measure requires participants to rate the strength of their agreement with these items on a 5-point Likert scale (1 = *to a very little extent, 5 = to a very large extent*). This measure has been used to successfully measure P-O fit across recent similar studies (Duffy et al., 2017; Duffy et al., 2015). Within the present study, reliability analyses revealed a strong alpha (α = .77).

The Calling and Vocation Questionnaire. The Calling Vocation Questionnaire (CVQ) was developed in 2012 by Dik et al., to measure the three components of calling in two different contexts (presence and search). For the purpose of this study, only questions assessing presence of calling were used. The components include purposeful

work (feeling as though one can/does derive meaning from an occupation), prosocial motivation (feeling an obligation to help others through work), and transcendent summons (feeling 'called' to an occupation by something greater than oneself). Additionally, the measure assesses the current relevance of each component based on the respondent's assessment of their current occupational fit with these components. Respondents who report a good match between these components and their job have high presence of calling and those who do not endorse a good fit between their current job and these components, but feels that they are important, would have high search for calling (Dik et al., 2012). Participants are asked to indicate their level of agreement on a 4-point scale (1 = *Not at all true of me*, 4 = *Absolutely true of me*). Sample items include "I see my career as a path to purpose in life" and "I am trying to build a career that benefits society." Internal consistencies for the measure are characterized as high, ranging between .83 and .93 in adult samples (Dik et al., 2012). Further, Previous research has used the CVQ to reliably measure calling across studies (Duffy et al., 2011; Ponton et al., 2012; Schultz et al., 2022). Similar results were found using the current dataset to assess reliability (α = .93).

Job Satisfaction. Job satisfaction was assessed using a 5-item version of Brayfield and Rothe's (1951) measure. The measure required participants to rate their agreement with five statements on a 10-point Likert scale (1 = *strongly disagree,* 10 = *strongly agree*). Sample items include "I feel fairly well satisfied with my present job" and "most days I am enthusiastic about work." Validation studies examining the measure have found strong internal consistency for adult populations (α = .88) and the measure has been used to reliably measure job satisfaction across similar studies (Duffy et al., 2012;

Judge et al., 1998). After data collection on the current study concluded, it was determined that reverse-coded variables should be removed in favor of a 3-item measure of job satisfaction due to an unacceptable alpha ($\alpha = .16$) when reverse-scored items were included. Once reverse-coded items were removed, reliability similar to previous studies was found ($\alpha = .86$).

Life Satisfaction. Life satisfaction was measured using the Satisfaction with Life Scale (SWLS) created by Diener and associates (1985) to measure a subject's overall assessment of how happy they are with their current life. Participants were asked to indicate their level of agreement on a 7-point scale (1 = *strongly disagree,* 7 = *strongly agree*) across 5 items measuring overall life satisfaction. Sample items include "In most ways my life is close to my ideal" and "so far I have gotten the important things I want in life." Internal consistencies for the measure are high, ranging from .61 to .81 (Diener et al., 1985). The SWLS has been used to accurately measure life satisfaction across research in calling (Duffy et al., 2012), fit (Allan et al., 2015), and decent work (Kim et al., 2021; Masdonati et al., 2019). In the present study, the reliability coefficient was high ($\alpha = .85$).

Procedures

Following IRB approval for this study, a request for participation was made available on Mturk with a link to a Qualtrics survey. After opening the link, consenting to participating in the research study, and meeting the inclusion criteria (i.e., employed adult living in the U.S.) participants were directed to the demographic questionnaire. To minimize over-representation from non-marginalized groups, the Qualtrics quotas feature was utilized. After completing the demographic questionnaire, if the quota had not been

met for their respective group (e.g., non-marginalized or marginalized), participants were presented with a survey that included the measures described above in randomized order. Once the quota for the non-marginalized group was met (approximately 60% of the sample), individuals meeting these criteria (e.g., White/Caucasian, cis-gendered, heterosexual, Christian, with no disabilities, and an income above $50,000) were exited from the survey and thanked for their time. Individuals who were exited due to a filled quota were not paid. Individuals who met the criterion for the non-marginalized group (e.g., Non-white, non-cisgendered, non-heterosexual, non-Christian, having an income of less than $50,000, or identifying as having a disability) moved to the next part of the survey until an appropriate sample size was collected. After completion of the questionnaires, participants were thanked and paid appropriately for their time completing the survey. A CAPTCHA was included before the questionnaires to prevent automated responses. Additionally, three validity checks (e.g., *"I have drank water at least once in my life"*) were interspersed throughout the survey to assess for participant carelessness (Meade & Craig, 2012).

After an appropriate sample size of completed and valid surveys were collected, data cleaning was conducted. Following data cleaning, a total of $n = 325$ valid cases remained for analysis. Notably, of the total attempts ($n = 2,789$), 69% of cases ($n = 1,920$) did not complete essential items within the survey and were removed. Another 515 participants failed at least one of the three quality assurance questions embedded within the survey, were exited from continuing the survey and their data were removed. Cases with qualitative answers that suggested answers had been automatically generated (e.g., providing the definition of work when asked to state job title, etc.; $n = 10$) were

removed. Across all measures, 3 missing data points were discovered and replaced using imputation via linear trend at point. Following this, appropriate items were reverse scored and total scores for each measure were calculated and internal consistency reliabilities calculated. Reliability analyses on the measure of job satisfaction revealed an unacceptable alpha with the inclusion of the reverse-coded items (α = .16). Without the two reverse-coded items, alpha increased to .86. One more reverse-coded item was removed (e.g., CVQ) for consistency. Data was then examined using z-scores to find and remove possible outliers. A z-score was computed for each measure total (PO-fit, DW, CVQ, Job satisfaction, Life satisfaction). Cases that fell outside the 3.00 cutoff were removed from the dataset (n = 14). Finally, a multiple regression analysis was performed to address assumptions and diagnostics and further examine possible outliers. Results revealed no violation of multicollinearity, and no violations of linearity or homoscedasticity. However, skewness (-6.8) and kurtosis (8.5) fell outside an acceptable range indicating a possible violation of normality of errors. Results revealed 5 additional outliers that were removed prior to analyses.

CHAPTER III – RESULTS

A latent profile analysis (LPA) was used to identify unique groups using three

indicators (P-O fit, decent work, and calling). In other words, the LPA assesses the

existence of an unobserved 'latent variable' that is then used to sort the data into groups.

The number of groups is determined by the best model fit. When conducting an LPA,

exploratory (i.e., having no hypotheses about the number of groups that will be revealed)

and confirmatory (i.e., supporting hypotheses of the number of groups that will be

revealed by the analysis) approaches are possible. Because no research has compared

these theories directly, an exploratory approach was most appropriate. An exploratory

approach has no a-priori assumptions about what model will best fit the data rather using

several model fit indices to determine the best fitting model (i.e., number of groups) to

retain.

Analyses for all hypotheses were analyzed in Statistical Innovations Latent Gold

with Syntax add-on (Version 6.0; Statistical Innovations, 2021). The first hypothesis

predicted that unique profile groups would emerge based on the individual differences of

participant ratings of decent work, calling, and P-O fit. To test this hypothesis, multiple

models varying the number of groups from 1 to 8 were produced and then model fit

statistics were compared to determine the most appropriate model. Specifically, models

were compared using Akaike's Information Criterion (AIC), Bayesian Information

Criterion (BIC), entropy, and Lo-Mendell-Rubin Likelihood Ratio (VLMR; Spurk et al.,

2020; Lo et al., 2001). The latter index compares the current model being assessed with a

model using one less group. Increasing the number of bootstrap samples to 500 in order

to increase the accuracy of the p-value produced by the LMR and decrease the likelihood

that the results will represent a local maximum is also recommended (Lo et al., 2001).

Once suggested adjustments were made and models were analyzed, it was determined

that both the 7-cluster and 6-cluster model met fit statistic parameters. However, closer

examination of group sizes revealed that the 6-cluster model had more equally distributed

groups whereas the smallest group in the 7-cluster model held only 4% of the sample

(e.g., approximately 14 individuals. Thus, the 6-cluster model was chosen due to group

size distribution in addition to low AIC and BIC values, balanced with a higher entropy

value, and significant VLMR (Table 1).

In the final group model, the group with the highest scores on P-O fit, decent

work, and calling was group 2 (n = 73). This group had high scores across all three

variables (POFS M = 4.43; DWS M = 6.00; CVQ-P M = 3.16) when compared to the

overall averages (Table 2; Figure 2). In fact, all three scores fell at least 1.5 standard

deviation above the overall mean for each work variable across groups. Additionally,

demographic data revealed that this group contained the highest concentration of Black or

multicultural-identifying individuals, was over 50% heterosexual, and had the highest

concentration of middle-class incomes (e.g., $50,000 – $99,999). This information

communicates that this group could be classified as 'happy and diverse middle class.'

Conversely, the group who would be considered the 'worst matched' was group 6 (n =

11). This group had the lowest scores across all three work variables (POFS M = 3.79;

DWS M = 4.70; CVQ-P M = 2.54). Each work variable score for this group fell at least

one standard deviation below the mean. The group with the second lowest POFS and

CVQ-P scores (POFS M = 3.85; CVQ-P M = 2.57) of all the groups was group 4 (n =

46); however, this group had a slightly higher DWS score (M = 4.97). Additionally, their

life satisfaction score (M = 29.38) fell just above the median of scores across groups while their job satisfaction score (M = 22.22) fell just below the median of scores across groups. This suggests that this group may place slightly more emphasis on life satisfaction and finding work that meets their basic needs. In other words, they follow a 'work to live' ideology rather than a 'live to work' ideology. Conversely, the group with the second lowest DWS score (M = 4.87) was group 5 (n = 18); however, this group had slightly higher POFS and CVQ-P scores (POFS M = 3.86; CVQ-P M = 2.63). This group's satisfaction scores were the second lowest compared to other groups. Examination of demographic data revealed that this group had the largest concentration of non-white individuals, and the largest percentage of high-earners suggesting that individuals in this group may be 'uncomfortable and marginalized.' Scores for group 3 (n = 69) fell closest to the mean for all groups. In other words, all work variables fell within 0.5 SD above the overall mean (POFS M = 4.16; M = 5.38; M = 2.87). Additionally, this group's satisfaction scores were a mirror of those described in the 'work to live' group (e.g., job satisfaction falling slightly below the median and job satisfaction falling slightly above the median). This suggests that this group is comprised of those who are content in the workplace or 'content workers.' Group 1, named the 'successful majority' group, due to its status as the largest group (n = 108) with the second highest concentration of high-earners (e.g., >100,000), and highest concentration of white-identifying individuals also had the second-highest satisfaction and work variable scores.

Once the best-fitting model was chosen, the second and third hypotheses were analyzed via latent class regression model with covariates added. The goal of this analysis was to examine how group membership predicted job and life satisfaction while

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accounting for covariates (race, sexual orientation, and income). Hypothesis 2 predicted

that profile membership would predict job and life satisfaction scores. Results of the

analysis supported hypothesis 2. First, the designation of classes as defined by predictors

(PO-fit, DWS, and Calling) had an entropy squared (i.e., accuracy rate) of 74.86%. Group

membership significantly predicted scores on life satisfaction [Wald(6) = 222.84, $p <$

.001] and life satisfaction was significantly varied across groups [Wald(5) = 60.33, $p <$

.001]. Further, examination of regression weights across groups revealed that

membership in the Successful majority (group 1) was the best predictor of life

satisfaction (Table 3, Figure 3) Similarly, job satisfaction was predicted by group

membership [Wald(6) = 468.82, $p < .001$] and was significantly different between groups

[Wald(5) = 82.09, $p < .001$]. Examination of regression weights across groups revealed

that membership in the Happy and diverse middle-class group (group 2) was the best

predictor if job satisfaction (Table 3). Group membership accounted for 79.29% of

variance within job satisfaction and 65.06% of variance within life satisfaction.

Hypothesis 3 was analyzed by examining the impact of the demographic variables

(race, sexual orientation, and income) on group membership. Across the three

demographic variables, none were significant predictors of group membership.

Specifically, neither race [Wald(35) = 11.62, p =1.00.] nor sexual orientation [Wald(15)

= 10.12, p =.81] or income [Wald(30) = 24.46, p =.75] significantly varied across groups

in predicting group membership. This hypothesis predicted that marginalized identities

would be over-represented within profiles with the lowest average scores across indicator

variables (PO-fit, DWS, CVQ) when compared to other profiles. Despite this result, the

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proportion of each demographic category (e.g., race, sexual orientation, and income) for each group was examined (Table 4).

All groups were comprised of majority White-identifying persons ranging from 60.86% in the 'uncomfortable and marginalized' group to 99.80% in the 'successful majority' group. Most groups were majority straight/heterosexual identifying. Notably, the group with the most (100%) straight-identifying individuals was the 'worst matched' group. Most groups were majority straight identifying with one exception. Notably, this exception was the 'happy and diverse middle-class' group which was majority bisexual-identifying individuals (64.69%). Finally, most groups contained majority middle-income individuals (i.e., incomes between $50,000 and $99,999) ranging from 52.35% of respondents in the 'work to live' group to 81.95% of respondents in the 'happy and diverse middle-class' group.

Notably, the 'happy and diverse middle-class' group, who had the highest concentration of multicultural and Black/African American identifying individuals (29.63% of group), a majority non-straight/heterosexual-identifying individuals (67.65% of group), the lowest concentration of low-income individuals (12.59%; income less than 50,000), and highest concentration of middle-income individuals (81.95% of group), also had the highest satisfaction scores. Conversely, the 'worst matched' group, who had a high concentration of group members identifying as White/Caucasian (90.88%), only straight-identifying individuals (100%), and contained a high concentration of those reporting incomes that were below the poverty level (<$50,000; 36.29%), had the lowest satisfaction scores. Thus, despite race and income's insignificance in predicting group membership, lower income individuals were overrepresented within groups who have

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lower satisfaction scores. This is in-line with the original prediction. However, contrary to the original hypothesis, the group with a very high concentration of White/Caucasian and straight-identifying population reported the lowest satisfaction, the 'worst matched' group, and the group with the largest non-White/Caucasian and non-straight identifying population reports the highest overall satisfaction; 'the happy and diverse middle-class' group.

CHAPTER IV – DISCUSSION

The purpose of this study was to use a person-centered approach to examine employee well-being in relation to their demographic information and their rating of work variables (PO-fit, DWS, CVQ-P). These variables, identified by three established, competing vocational theories (TWA, PWT, WCT) each present pathways to job satisfaction, a predictor of life satisfaction. Similar to the results laid out in these theories, results of the present study revealed that, of the 6 distinct groups identified by the LPA, individuals who were members of groups with high work variable scores, namely high person-organization fit, decent work, and calling, had high wellbeing. In other words, the PO-fit, DWS, and CVQ-P scores of each group were significant predictors of both job satisfaction and life satisfaction. However, contrary to previous findings, demographic variables (e.g., race, sexual orientation, income) were not significant predictors of group membership.

Previous research examining fit, decent work, and calling, has revealed close relationships between these variables. In fact, these variables are often integral to the theories that are being examined. For example, work meaning is predicted by person-environment fit in the WCT (Duffy et al., 2018) and this relationship is demonstrated in adjacent research (Schultz et al., 2022). Additionally, one of the five constructs assessed by the DWS utilized in PWT addresses PO-fit concerns (e.g., organizational values that complement family and social values; Duffy et al., 2016; Duffy et al., 2017). Thus, these variables are closely related. However, due to the lack of research utilizing person-centered approaches, more specific predictions on the number of groups that would emerge could not be made and an exploratory approach was taken in analyzing the first

hypothesis. Results found support for six unique profiles. Further examination of the variable means across groups reveals that evidence suggested by previous research has been corroborated by the current findings. Specifically, the three variables are closely related such that they covary together across groups.

Expanding on the first hypothesis, it was predicted that the unique groups would predict significant variance in well-being. Previous research examining the relationships between work variables and well-being has demonstrated significant positive relationships between each of the work variables and job and life satisfaction (Duffy et al., 2012; Judge & Watanabe, 1993; Kim et al., 2021; Kristoff-Brown et al., 2005; McIlveen et al., 2020). Results of the current research supported and expanded upon these previous findings. Results revealed that membership in certain groups was indicative of high average scores on the well-being measures whereas membership in other groups was indicative of low average scores on the well-being measures. These findings are notable due to the amount of variance across job and life satisfaction that is explained by group membership. Specifically, group membership explained 79.29% of the variance in job satisfaction scores and 65.06% of the variance in life satisfaction scores. Compared to previous findings that examined each work variable independently, the current study underlines the utility of examining multiple work variables to better predict well-being.

Contrary to the findings of previous research, the third hypothesis was not supported by the results of this study. It was predicted that groups containing larger populations of marginalized individuals (non-White, non-straight, low-income) would also have lower average work variable (PO-fit, DWS, CVQ-P) and lower well-being (job

satisfaction, life satisfaction) scores. In other words, having a marginalized identity would be another explanation for the differences in well-being scores across groups in addition to the work variables. Previous studies examining the relationship between marginalized individuals and work variables across the three theories of interest have supported this hypothesis. For racial minorities and those identifying as LGBT+, PO-fit scores and indicators of decent work have been low across previous studies (Duffy et al., 2016a; Lovelace & Rosen 1996). For low-income workers, previous research has revealed this identity to be indicative of low scores across all three of the work variables (Duffy et al., 2017; ILO, 2014; Kim et al., 2021; Waterfield et al., 2019).

The findings of the current study are somewhat consistent with previous findings. For example, while not found to be significant covariates, some similar patterns can be seen when demographic data of individual groups are examined. Specifically, the 'happy and diverse middle-class' group contained the largest percentage of middle-income individuals ($50,000—$100,000). Additionally, the group with the highest concentration of racial minorities was the 'uncomfortable and marginalized' group whereas the 'successful majority' group had the highest concentration of White-identifying individuals. However, patterns contrary to previous research were also examined. Specifically, the 'happy and diverse middle-class' group had the highest concentration of non-heterosexual and Black-identifying employees. In fact, this group was majority bisexual. Further, the 'worst matched' group had the highest concentration of heterosexual individuals. Additionally, the 'uncomfortable and marginalized' group had the highest concentration of high-income individuals and the 'work to live' group had the largest percentage of low-income individuals (< $50,000).

Examination of regression parameters reveals further information about the predictive power of these groups on life satisfaction and job satisfaction. Specifically, job satisfaction scores were best explained by membership in the 'happy and diverse middle-class' group. In other words, membership in the group with the highest scores (> 1.5 SD above the mean for each variable) across all three work variables (the happy and diverse middle-class) best explained high job satisfaction scores. Additionally, membership in this group best predicted job satisfaction scores despite potential barriers that may arise due to marginalized status from race or sexual orientation. However, income may play a role in this finding. As previously noted, this group had the lowest concentration of individuals reporting an income below 50,000 which could impact overall job satisfaction and may partially explain the high DWS score. Examination of regression parameters for life satisfaction revealed that membership in the 'successful majority' group was the best predictor of this variable. This indicates that individuals reporting high scores across work variables (> 0.5 SD above the mean for each variable) and a high concentration of economic and social privilege had the highest life satisfaction scores.

Due to the gaps in research and inconsistencies revealed by this study, it is likely that additional variables are at play when predicting an individual's scores across work variables and how these relate to overall well-being. For racial minorities and LGBT+ individuals, previous research has indicated that increased perception of workplace acceptance predicts PO-fit scores (Lyons et al., 2014; Martinez et al., 2017; Velez & Moraldi, 2012). Additionally, the DWS measures similar constructs (e.g., 'Organizational values complement family and social values' and 'Physically and interpersonally safe working conditions;' Duffy et al., 2017) thus, workplace acceptance may be a common

factor across TWA and PWT. However, the CVQ-P does not measure similar constructs. Previous research examining the effect of marginalized identity on job satisfaction revealed calling as a moderator (Schultz et al., 2022). Similar effects may be occurring here. In other words, stressors that are present for marginalized individuals (e.g., microaggressions, low workplace acceptance) may be buffered by high levels of calling. In sum, while TWA and PWT provide mechanisms for job satisfaction (e.g., variables indicative of workplace acceptance), calling offers a different pathway to job satisfaction through meaning-making. Despite the different pathways, all three yield the same result: increased wellbeing may not rely on demographic information as heavily as previous research would suggest, yet individuals' perception of increased P-O fit, access to decent work, and having a job that they feel called to, regardless of their background, matters.

Limitations

The results of this research and the implications that follow must be interpreted while acknowledging the limitations associated with procedures for soliciting participation and collecting data. First, those who participated in this research were recruited from MTurk which incentivizes participation via cash payment that must be at least equivalent to the U.S. federal minimum wage. Although measures were taken to ensure that cases met standards of quality (e.g., advertising to employed U.S. adults, including CAPTCHA, quotas, including quality assurance checks, preventing ballot-stuffing etc.), incentivizing participation with cash may encourage more pointed efforts to circumnavigate these safeguards. Second, some security measures may not have been as effective as originally intended. For example, the quality assurance (QA) checks were intended to filter bad-faith responders from the final dataset; however, after data

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collection concluded, it was noticed that all three QA questions could be passed by answering affirmatively (e.g., 'I have drank water at least once in my life,' 'I currently reside in the U.S.,' and 'The sun is likely to rise tomorrow.'). This suggests that some bad-faith respondents who answered questions affirmatively to items throughout the survey may have remained in the final dataset. Additionally, this oversight may explain the unacceptable alpha that was produced when appropriate items were reverse scored on the job satisfaction measure. Thus, it is possible that average scores across measures may skew in a positive direction, impacting the results of this research.

Another limitation that should be acknowledged when interpreting the findings of this study is the demographic make-up of the participants. Quotas were implemented to limit the amount of non-marginalized individuals permitted to participate in the study however, these may not have been utilized to their full potential. For example, two groups were identified: non-marginalized and marginalized. To qualify as 'non-marginalized,' a participant must have endorsed zero marginalized identities across gender, race, sexual orientation, disability status, religion, and income. Conversely, to qualify as 'marginalized,' a participant needed only to endorse one marginalized identity across the previously listed categories. The current study analyzed three domains related to identity due to their presence across previous research (Allan et al., 2019; Duffy et al., 2016a; Duffy et al., 2017; ILO, 2014; Kim et al., 2021; Lovelace & Rosen, 1996; Lyons et al., 2014; Velez & Moradi, 2012; Waterfield et al., 2019); however, additional information involving other potential marginalized identities (e.g., religious orientation, disability status, gender identity, etc.) was collected to identify marginalized individuals during the recruitment process. Because this research focused only on specific

demographics (race, sexual orientation, and income), it is possible that the marginalized group became falsely inflated by those who identified with other marginalized identities. For example, a Jewish individual, a transgender individual, or a deaf individual with no other marginalized identities would be sorted in the 'marginalized' group; however, their identity did not affect the final analyses because these identities, while marginalized, were not explored as covariates. Additionally, the existence of a marginalized identity does not account for the amount of potential distress related to one's identity or how much the individual perceives feeling marginalized by holding that identity across contexts, particular at work. Future research would benefit from including more nuance when creating quotas to prevent false inflation from occurring and from measuring the amount of marginalization each individual perceives due to their identity.

<center>Implications</center>

The three theories used in this research each identify a different work variable that is assumed to be most salient to achieving job satisfaction. The TWA presents P-O fit as the greatest predictor of job satisfaction (Dawis, 2005), the PWT proposes that decent work is the best way achieve job satisfaction (Duffy et al., 2016a), and the WCT claims that pursuing a calling in work is the strongest indicator of job satisfaction. However, each of these theories rely on trait and factor models to support their claims. In other words, these theories assume that the individual would be able to make career decisions based on the knowledge of their own values, skills, and interests to maximize job satisfaction without acknowledging the specific barriers that may be present for individuals based on individual characteristics (e.g., demographic, personal history, etc.).

The present research examined the three theories simultaneously while taking race, sexual orientation, and income into consideration and found additional support for each of the three theories' claims. Specifically, it was revealed that each of the work variables (P-O fit, DWS, and CVQ-P) were significant predictors of group membership and these groups were consistent in work variable scores (i.e., high work variable scores were grouped together, etc.). Additionally, group membership was predictive of well-being scores such that groups with high PO-fit, DWS, and CVQ-P scores had higher job and life satisfaction scores. These findings support previous research regarding the relationships between P-O fit, decent work, and calling and well-being. Examination of demographic information as potential covariates produced no significant results. There are several limitations discussed above that may explain these findings, yet they suggest that race, sexual orientation, and income did not have significant implications for this sample when determining their perceived P-O fit, decent work and calling.

When considering these findings, future clinicians may find it beneficial to explore patient connection across any of the three theories to increase their overall well-being within work instead of focusing on what may work best for a specific client based on their demographic information or economic background. Clinicians will need to engage fully with their clients' career concerns and be collaborative with their clients during the decision-making process when choosing a treatment approach. Clinicians can do this by having a thorough understanding of multiple theories that explain well-being and job satisfaction in order to help the individual in determining the best theory to use when working with their provider to increase overall well-being. Yet, findings suggested that the most salient variables across each of these theories, considered in tandem, were a

robust predictor of both life and job satisfaction. Thus, integration of all three variables in considering satisfying pursuits is advised.

Future research should continue to explore these relationships and may yet reveal results that can guide future clinicians toward best practice for their patients. Additionally, future research examining the relevance of other demographic information (e.g., disability status, region of origin, religion, gender identity, etc.) will be necessary to better understand the relationship between work variables and job satisfaction for these groups. Closer examination into the three theories as they pertain to job satisfaction across demographic information may help future researchers and clinicians better understand which work variable may be more relevant for certain groups and thus a better target for clinical intervention in vocational counseling.

Table 1 . *Fit Indices of LPA Step 1 Results for 1-8 groups*

	Number of Groups							
	1	2	3	4	5	6	7	8
Loglikelihood	-1061.07	-837.88	-696.59	-648.45	-618.55	-588.95	-568.93	-431.81
Bayesian Information Criterion	2156.85	1750.96	1508.85	1453.07	1433.75	1415.04	1415.49	1181.72
Akaike's Information Criterion	2134.15	1701.77	1433.17	1350.91	1305.1	1259.9	1233.86	973.61
VLMR		446.382	282.593	96.276	59.813	59.190	40.041	274.250
-2LL Diff (VLMR) *p*-value		0.000	0.000	0.000	0.000	0.000	0.001	0.000
Entropy	1	0.83	0.86	0.81	0.83	0.86	0.81	0.94

Table 2 . *Group variable means*

	Class Size (% of sample, N = 325)	Job Satisfaction	Life Satisfaction	POFS	DWS	CVQ-P
Group 1 – Successful majority	33.19%	27.18	31.48	4.22	5.60	2.98
Group 2 – Happy and diverse middle class	22.55%	28.49	32.01	4.43	6.00	3.16
Group 3 – Content workers	21.24%	26.25	26.97	4.16	5.38	2.87
Group 4 – Work to live	14.09%	22.22	29.38	3.85	4.97	2.57
Group 5 – Uncomfortable and marginalized	5.50%	20.42	22.70	3.86	4.87	2.63
Group 6 - Worst matched	3.43%	16.24	19.72	3.79	4.70	2.54
Total Sample M	-	25.83	26.46	4.05	5.25	2.79
SD	-	4.28	4.52	0.23	0.45	0.23
Possible Range	-	0 – 30.00	0 – 35.00	0 – 5.00	0 – 7.00	0 – 4.00

Note. POFS = Person-organization fit scale; DWS = Decent Work Scale; CVQ-P = Calling and Vocation Questionnaire - Presence

Table 3 . *Regression Weights of Dependent Variables Across Groups*

	Job Satisfaction	Life Satisfaction
Group 1 – Successful majority	14.24	19.86
Group 2 – Happy and diverse middle-class	19.67	16.57
Group 3 – Content workers	7.22	1.13
Group 4 – Work to live	6.26	12.61
Group 5 – Uncomfortable and marginalized	10.70	-2.75
Group 6 - Worst matched	-10.33	18.51

Table 4 . *Demographic Profile of Groups*

|	Successful majority	Happy and diverse middle-class	Content workers	Work to live	Uncomfortable and marginalized	Worst matched
Covariates						
Race						
Alaskan Native	0.87%	1.39%	0%	0%	0%	0%
Black/African American	0.04%	16.78%	10.78%	0.42%	5.57%	0%
Native Hawaiian	0%	0%	0%	0%	5.59%	0%
Native American	0%	1.35%	0.01%	2.17%	5.63%	0%
Hispanic/Latinx	0%	0%	2.89%	0%	5.59%	9.11%
Asian	0.04%	4.12%	0.02%	6.41%	11.15%	0.02%
White/Caucasian	99.80%	63.53%	81.36%	91.00%	60.86%	90.88%
Multicultural/Multiracial	0.13%	12.85%	3.51%	0%	5.60%	0%
Sexual Orientation						
Straight	88.01%	32.35%	73.93%	72.98%	94.41%	100.00%
Gay or Lesbian	0%	2.96%	0%	3.98%	5.59%	0%
Bisexual	11.98%	64.69%	24.62%	23.04%	0%	0%
Asexual	0%	0%	1.45%	0%	0%	0%
Income (in USD)						
< 10,000	0.01%	1.34%	1.46%	0%	0%	0%
10,000 - 24,999	3.75%	0%	5.19%	5.19%	0%	0%
25,000 - 49,999	19.35%	11.25%	35.49%	38.28%	15.92%	36.29%
50,000 - 74,999	19.00%	49.40%	26.25%	35.80%	37.49%	27.32%
75,000 - 99,999	41.09%	32.55%	30.22%	16.55%	18.61%	27.27%
100,000 - 149,999	13.99%	5.46%	0%	4.17%	22.39%	9.12%
> 150000	2.82%	0%	1.41%	0%	5.59%	0%

Figure 1. Proposed Model
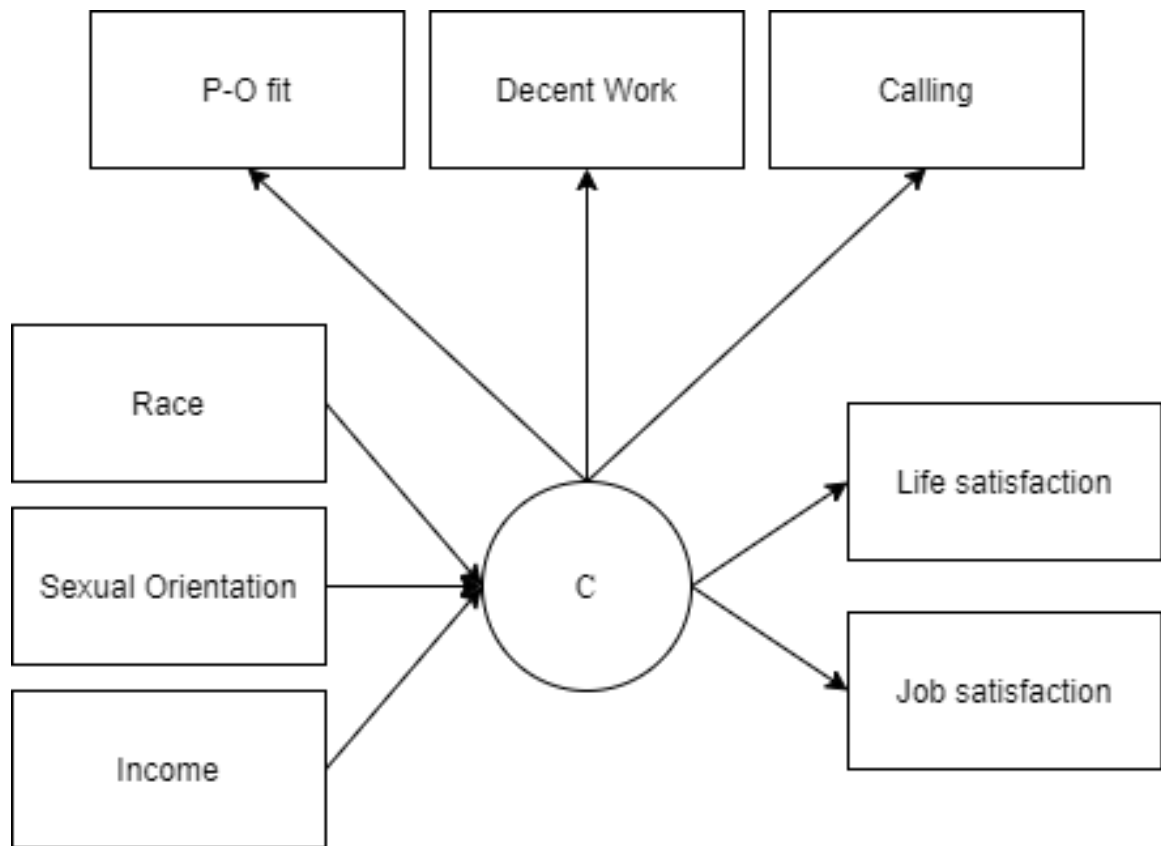
Figure 2. Indicator Means across Groups
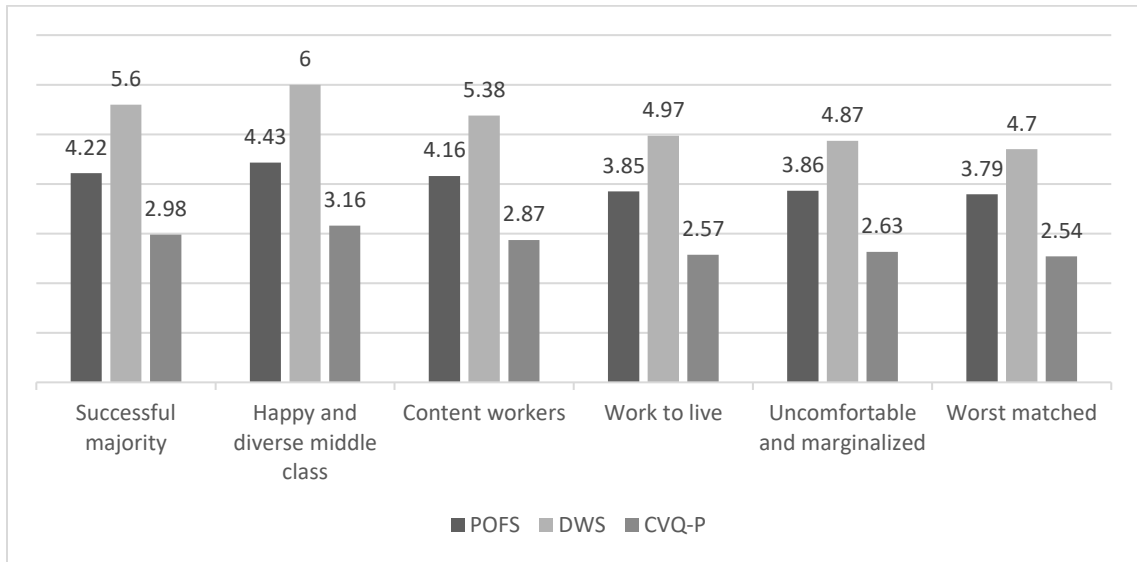
Note. POFS = Person-organization fit scale; DWS = Decent Work Scale; CVQ-P = Calling and Vocation Questionnaire - Presence

Figure 3. Means for Job Satisfaction and Life Satisfaction across Groups
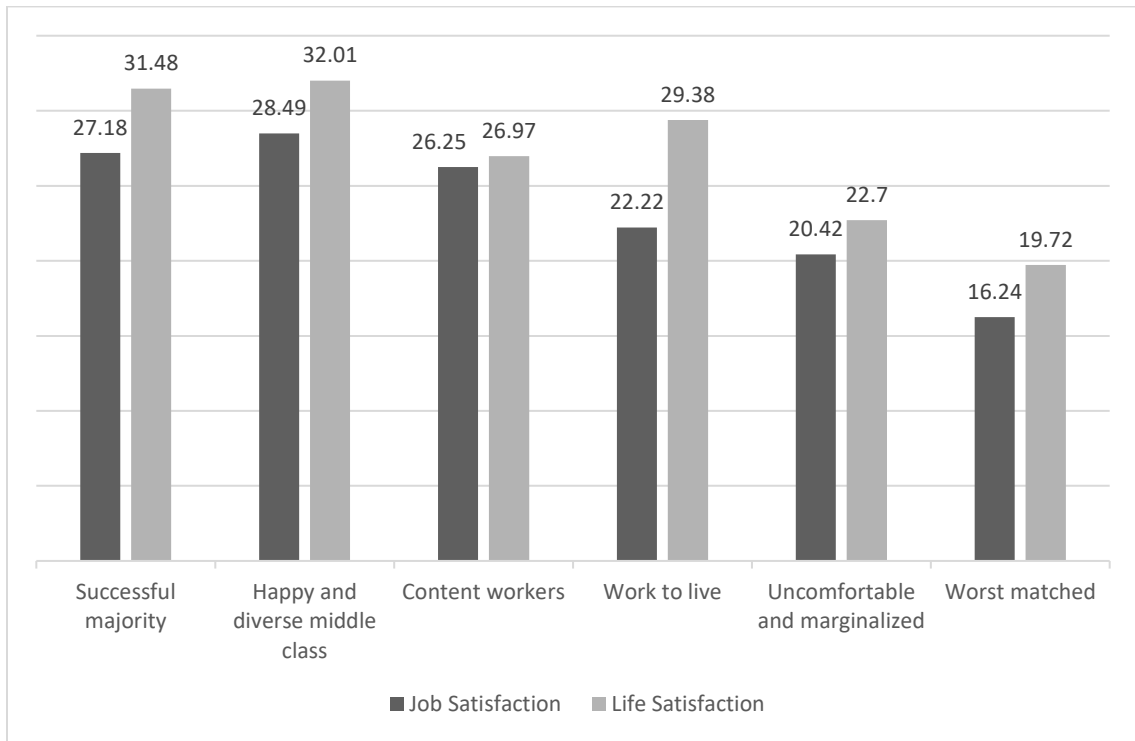
APPENDIX A – Demographics form

Please provide the following information about yourself and your household.

1. Please provide your age:_____ years
2. What is your Date of Birth:_____ (Month, day, year)
3. Gender Identity (select all that apply): O Female O Male O Non-binary/Third gender O Transgender O Cisgender O Agender O Genderqueer O A gender not listed O Prefer to self-describe O Prefer not to say
4. Sexual Orientation (select all that apply): O Straight/Heterosexual O Gay or Lesbian O Bisexual O Queer O Asexual O Prefer to self-describe O Prefer not to say
5. What is your Race/Ethnicity (select all that apply)?
    o Alaskan Native
    o Black or African American
    o Native Hawaiian
    o American Indian
    o Hispanic/Latino
    o Pacific Islander
    o Asian
    o Middle Eastern/Northern African
    o White or Caucasian
    o Multicultural/Multiracial
6. Are your Hispanic?
    o Yes
    o No
7. Do you have any of the following long-lasting conditions: Blindness, deafness, or a severe vision or hearing impairment?
8. Do you have a condition that substantially limits one or more basic physical activity such as walking, climbing stairs, reaching, lifting, or carrying?
9. Because of a physical mental, or emotional condition lasting longer than 6 months or more, do you have difficulty with any of the following?
    o Learning, remembering, concentrating
        i. Yes
        ii. No
    o Dressing, bathing, or getting around inside the home
        i. Yes
        ii. No
    o Going outside the home alone to shop or attend an appointment
        i. Yes
        ii. No
    o Working a job or business

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    i. Yes

    ii. No

10. What religious orientation most closely aligns with your beliefs?

- Atheist
- Agnostic
- Buddhist
- Christian (please specify)
- Hinduism
- Islam
- Judaism
- Spiritual, not religious
- Prefer not to disclose
- Other

11. What is your current relationship status?

- Single/Never married
- In a committed relationship
- In a committed relationship AND living together
- Engaged/married/partnered
- Divorced/separated
- Widowed

12. In what state do you live? _____

13. What is the highest level of education you have completed?

- Some High School
- High School Diploma
- Some College
- Associate's Degree
- Vocational Technology Certificate
- Bachelor's Degree
- Master's Degree
- Doctoral Degree
- Professional Degree
- other

14. Please provide the following information for the primary job you currently have.

15. How long have you been employed in this job? _____years, _____months

16. How many hours per week, on average, do you work at this job? _____hours

17. Are you considered part-time or full-time at this job? _____

18. Which of the following best describes your current (main) occupational category:

- agriculture, food and natural resources
- architecture and construction
- arts, audio/video technology and communications
- business, management and administration
- education and training
- finance

- government and public administration
- health science
- hospitality and tourism
- human services
- information technology
- law, public safety, corrections, security
- manufacturing
- marketing, sales and service
- science, technology, engineering, mathematics
- transportation, distribution and logistics
- none of the above: _____

19. What is your total household gross annual income?
- Less than 10,000
- Between 10,000 and 24,999
- Between 25,000 and 49,999
- Between 50,000 and 74,999
- Between 75,000 and 99,999
- Between 100,000 and 149,999
- Greater than 150,000
- Prefer not to answer

20. Are you enrolled in school currently?
- Yes
- No

21. If you selected yes, what type?
- Community college
- 4-year University
- Technical/trade school
- Graduate program
- Other (please specify)

APPENDIX B – Decent Work Scale

Duffy et al., 2017

1. Physically and interpersonally safe working conditions

    a. I Feel emotionally safe interacting with people at work

    b. At work, I feel safe from emotional or verbal abuse of any kind

    c. I feel physically safe interacting with people at work

2. Access to Healthcare

    a. I get good healthcare benefits from my job

    b. I have a good healthcare plan at work

    c. My employer provides acceptable options for healthcare

3. Adequate compensation

    a. I am not properly paid for my work ®

    b. I do not feel I am paid enough based on my qualifications and experience ®

    c. I am rewarded adequately for my work

4. Hours that allow for free time and rest

    a. I do not have enough time for non-work activities ®

    b. I have no time to rest during the work week ®

    c. I have free time during the work week

5. Organizational values complement family and social values

    a. The values of my organization match my family values

    b. My organization's values align with my family values

c. The values of my organization match the values within my community

Cable and DeRue, 2002

P-O fit

1. The things that I value in life are very similar to the things that my organization values

2. My personal values match my organization's values and culture

3. My organization's values and culture provide a good fit with the things I value in life

Needs-supplies fit

4. There is a good fit between what my job offers me and what I'm looking for in a job

5. The attributes that I look for in a job are fulfilled well by my present job

6. The job that I currently hold gives me just about everything that I want from a job

Demands-abilities fit

7. The match is very good between the demands of my job and my personal skills

8. My abilities and training are a good fit with the requirements of my job

9. My personal abilities and education provide a good match with the demands that my job places on me

Dik et al., 2012

Please indicate the degree to which you believe the following statements describe you, using the following scale. Please respond with your career as a whole in mind. For example, if you are currently working part time in a job that you don't consider part of your career, focus on your career as a whole and not your current job. Try not to respond merely as you think you ''should'' respond; rather, try to be as accurate and as objective as possible in evaluating yourself. If any of the questions simply do not seem relevant to you, ''1'' may be the most appropriate answer.

1 = Not at all true of me	2 = Somewhat true of me
3 = Mostly true of me	4 = Absolutely true of me

1. I believe that I have been called to my current line of work.

2. I'm searching for my calling in my career.

3. My work helps me live out my life's purpose.

4. I am looking for work that will help me live out my life's purpose.

5. I am trying to find a career that ultimately makes the world a better place.

6. I intend to construct a career that will give my life meaning.

7. I want to find a job that meets some of society's needs.

8. I do not believe that a force beyond myself has helped guide me to my career.

9. The most important aspect of my career is its role in helping to meet the needs of others.

10. I am trying to build a career that benefits society.

11. I was drawn by something beyond myself to pursue my current line of work.

12. Making a difference for others is the primary motivation in my career.

13. I yearn for a sense of calling in my career.

14. Eventually, I hope my career will align with my purpose in life.

15. I see my career as a path to purpose in life.

16. I am looking for a job where my career clearly benefits others.

17. My work contributes to the common good.

18. I am trying to figure out what my calling is in the context of my career.

19. I'm trying to identify the area of work I was meant to pursue.

20. My career is an important part of my life's meaning.

21. I want to pursue a career that is a good fit with the reason for my existence.

22. I am always trying to evaluate how beneficial my work is to others.

23. I am pursuing my current line of work because I believe I have been called to do so.

24. I try to live out my life purpose when I am at work.

Scoring instructions (items listed should be summed):

CVQ-Presence-Transcendent Summons 1, 8-reverse coded, 11, 23

CVQ-Search-Transcendent Summons 2, 13, 18, 19

CVQ-Presence-Purposeful Work 3, 15, 20, 24

CVQ-Search-Purposeful Work 4, 6, 14, 21

CVQ-Presence-Prosocial Orientation 9, 12, 17, 22

CVQ-Search-Prosocial Orientation 5, 7, 10, 16

CVQ-Presence total 1, 3, 8-reverse coded, 9, 11, 12, 15, 17, 20, 22, 23, 24

CVQ-Search total 2, 4, 5, 6, 7, 10, 13, 14, 16, 18, 19, 21

APPENDIX E – Job Satisfaction

Brayfield & Rothe, 1959

Using the following scale, please indicate how closely each statement fits your feelings toward your current job on a scale from 1 – 10 with 1 indicating that you completely disagree with the statement and 10 indicating that the statement reflects your feelings perfectly.

1 = strongly disagree – 10 = Strongly agree

1. "I feel fairly well satisfied with my present job,"

2. "Most days I am enthusiastic about my work,"

3. "Each day of work seems like it will never end" (reverse scored),

4. "I find real enjoyment in my work," and

5. "I consider my job rather unpleasant" (reverse scored)

APPENDIX F – The Satisfaction with Life Scale

Diener et al., 1985

The Satisfaction with Life Scale

1. In most ways my life is close to my ideal.

2. The conditions of my life are excellent.

3. I am satisfied with my life.

4. So far, I have gotten the important things I want in life.

5. If I could live my life over, I would change almost nothing.

Office of Research Integrity

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Modification Institutional Review Board Approval

The University of Southern Mississippi's Office of Research Integrity has?received the notice of your modification for your submission *An examination of well-being across theories of career development using Latent Profile Analysis* (IRB #:21-347).

The project below has been reviewed by The University of Southern Mississippi Institutional Review Board in accordance with Federal Drug Administration regulations (21 CFR 26, 111), Department of Health and Human Services regulations (45 CFR Part 46), and University Policy to ensure:

- The risks to subjects are minimized and reasonable in relation to the anticipated benefits.
- The selection of subjects is equitable.
- Informed consent is adequate and appropriately documented.
- Where appropriate, the research plan makes adequate provisions for monitoring the data collected to ensure the safety of the subjects.
- Where appropriate, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of all data.
- Appropriate additional safeguards have been included to protect vulnerable subjects.
- Any unanticipated, serious, or continuing problems encountered involving risks to subjects must be reported immediately. Problems should be reported to ORI via the Incident submission on InfoEd IRB.
- The period of approval is twelve months. An application for renewal must be submitted for projects exceeding twelve months.

PROTOCOL NUMBER: 21-347
PROJECT TITLE: An examination of well-being across theories of career development using Latent Profile Analysis
SCHOOL/PROGRAM   School of Psychology
RESEARCHERS: PI: Jessica Schultz
    Investigators: Schultz, Jessica~Leuty, Melanie~
IRB COMMITTEE ACTION: Approved
CATEGORY: Expedited Category
PERIOD OF APPROVAL: 08-Feb-2022 to 15-Dec-2022

Donald Sacco Jr.

Donald Sacco, Ph.D.
Institutional Review Board Chairperson

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